

REMARKS

Claims 1, 4-9 and 11-14 are pending in this application. By this Amendment, claim 1 is amended, and new claims 12-14 are added. In addition, the specification is amended to correct informalities. Support for the amendments can be found for example, in Figs. 1(a) and 1(b) and their supporting disclosures. No new matter is added. Reconsideration and prompt allowance of the pending claims are respectfully requested, at least in light of the following Remarks.

I. Personal Interview

Applicants appreciate the courtesies shown to Applicants' representative by Examiner Rivera in the April 13, 2011 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

II. The Claims Define Patentable Subject Matter

The Office Action rejects claims 1, 4, 5, 7-9 and 11 under 35 U.S.C. §103(a) over U.S. Patent No. 6,811,737 to Fukuta et al. ("Fukuta") in view of JP 09-085481 to Onodera et al. ("Onodera") and JP 2002-126421 to Yamamura; and rejects claim 6 under 35 U.S.C. §103(a) over Fukuta in view of Onodera and Yamamura and further in view of JP 01-233083 to Kanehara. The rejections are respectfully traversed.

The applied references, either alone or in combination, would not have rendered obvious "a tape bonder that bonds a continuous tape onto an end surface of the honeycomb structural body...a pair of rollers that contact the tape upstream of the honeycomb structural body and contact a residual portion of the tape downstream of the honeycomb structural body, respectively, the residual portion of the tape being created after the tape is cut by the laser oscillator, wherein the tape bonder includes a winding element for winding the residual portion of the tape," recited in claim 1.

As agreed in the April 13 personal interview, the sheet 4 of Fukuta is not a continuous tape. In contrast, claim 1 recites "a tape bonder that bonds a continuous tape." In addition, one of ordinary skill would have no reason to modify Fukuta to include "a pair of rollers that contact the tape upstream of the honeycomb structural body and contact a residual portion of the tape downstream of the honeycomb structural body, respectively," as recited in claim 1 because the sheet 4 of Fukuta is a precut sheet and not a continuous sheet. In particular, the claimed configuration of rollers would not interact with the sheet 4 of Fukuta to transport the sheet 4 because the sheet 4 is not a continuous tape. In addition, the pair of rollers would not interact with the sheet 4 of Fukuta to apply the sheet 4 onto the end face of the honeycomb formed body 1 of Fukuta because neither roller would be in a position capable of pressing the sheet 4 onto the face of the honeycomb formed structure 1. Therefore, adding a pair of rollers in the claimed configuration would not benefit to the apparatus of Fukuta.

Furthermore, Yamamura fails to remedy the deficiency of Fukuta because Yamamura discloses only one roller 21 configured to guide the sheet 25 away from the honeycomb body 10 (see Yamamura, Fig. 3). Providing a pair of rollers in the claimed configuration ensures that a part of the continuous tape is maintained on the end face of the honeycomb structural body during the cutting step. In contrast, the use of only one roller 21 that moves across a face of a honeycomb filter 10, as taught by Yamamura, cannot ensure that a part of the sheet 25 is maintained on the end face of the honeycomb filter 10.

Applicants also submit that it would not have been obvious for one of ordinary skill to combine Fukuta and Yamamura to teach a film bonding machine comprising the claimed winding element. In particular, the alleged combination of Fukuta and Yamamura would fail to include a component corresponding to the winding element of claim 1.

The Advisory Action asserts that the winding element of claim 1 collects excess material not needed for the manufacture of the honeycomb structure and that the exfoliation

equipment 20 of Yamamura also performs the function of collecting excess material not needed for the manufacture of the honeycomb structure. Applicants submit that the Advisory Action's paraphrasing of claim 1 does not reflect the scope of claim 1.

In particular, claim 1 recites "the residual portion of the tape being created after the tape is cut by the laser oscillator...a winding element for winding the residual portion of the tape" (emphaiss added). Thus, the winding device of claim 1 winds a portion of the tape. In contrast, Yamamura discloses removing the entire adhesion sheet 26 from the honeycomb filter 10 (see Yamamra, Fig. 3a). Furthermore, the exfoliation equipment 20 of Yamamura is incapable of removing only a portion of the adhesion sheet 26.

Yamamura discloses pressing a sheet 25 to a face of a honeycomb filter 10 to create an adhesive force between an adhesion sheet 26 and the sheet 25 that is greater than the adhesive force between the adhesion sheet 26 and the face of the honeycomb filter 10 (see Yamamura, Fig. 3a and paragraph [0049]). In addition, the sheet 25 of Yamamura is sized to cover the entire adhesion sheet 26. Thus, the entire adhesion sheet 26 is subjected to the removal force of the sheet 25.

Because the exfoliation equipment 20 of Yamamura is incapable of removing only a portion of the adhesion sheet 26, the structure of the exfoliation equipment 20 of Yamamura is different from the structure of the winding element of claim 1, which winds "the residual portion of the tape." Yamamura fails to disclose any other component that has the same structure as the winding element of claim 1. Therefore, Yamamura fails to remedy the deficiency of Fukuta.

Furthermore, incorporating the exfoliation equipment 20 of Yamamura into the alleged sheet bonder of Fukuta as suggested by the Office Action would render Fukuta unsatisfactory for its intended purpose. In particular, if Fukuta and Yamamura were combined as suggested by the Office Action, the exfoliation equipment 20 of Yamamura

would remove the adhesive sheet 4 from the honeycomb structure before the adhesive sheet 4 can be processed or used as a mask in the sealing process of Fukuta.

Fukuta discloses preparing a sheet 4 to have a size that is substantially the same as that of an end surface of a honeycomb formed body 1 and adhering the sheet 4 to the end surface of the honeycomb formed body 1 (see Fukuta col. 3, lines 41-45). In addition, the sheet 4 is used as a mask during a sealing process (see Fukuta col. 3, lines 56-57). The Office Action acknowledges that Fukuta fails to explicitly disclose a bonder that adheres the sheet 4 to the honeycomb formed body 1 but asserts that Fukuta impliedly discloses a tape bonder because a tape bonder is needed to adhere the sheet 4 to the honeycomb formed body 1.

The Office Action further acknowledges that Fukuta fails to disclose a tape bonder that includes a winding element corresponding to the winding element of claim 1 but asserts that the exfoliation equipment 20 of Yamamura remedies this deficiency. However, in order to remedy the deficiency of Fukuta, the exfoliation equipment 20 of Yamamura would have to be part of the tape bonder of Fukuta because the winding element of claim 1 is part of the tape bonder of claim 1.

The Office Action fails to assert that the alleged tape bonder of Fukuta performs any function other than adhering the sheet 4 to the honeycomb formed structure 1. Therefore, under the Office Action's interpretation of Fukuta, the alleged tape bonder only interacts with the honeycomb formed structure 1 when the sheet 4 is adhered to the honeycomb formed structure 1. As part of the alleged tape bonder of Fukuta, the exfoliation equipment 20 of Yamamura would also only interact with the honeycomb formed structure 1 when the sheet 4 is adhered to the honeycomb formed structure 1. Accordingly, the exfoliation equipment 20 would remove the sheet 4 prior to the sealing step. However, the sole purpose of the sheet 4 is to act as a mask during the sealing step. Thus, combining the exfoliation equipment 20 of

Yamamura with the alleged tape bonder of Fukuta would render Fukuta unsatisfactory for its intended purpose.

The remaining applied references fail to remedy the deficiencies of Fukuta and Yamamura. Therefore, independent claim 1 is patentable over the applied references.

Dependent claims 4-9 and 11 depend from independent claim 1. Therefore, those dependent claims are patentable at least for their dependence from independent claim 1, as well as for the additional features those dependent claims recite. Withdrawal of the rejections is requested.

III. New Claims 12-14

New claims 12-14 depend from independent claim 1. Therefore, new claims 12-14 are patentable at least for their dependence from independent claim 1, as well as for the additional features new claims 12-14 recite. For example, as agreed in the April 13, 2011 personal interview, none of the references disclose the "a press unit configured to press the tape onto the end surface of the honeycomb structural body, the press unit having a swing arm structure that is configured to pivotably move a portion of the press unit from a first position to a second position," as recited in claim 14.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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Attachments:

Petition for Extension of Time
Request for Continued Examination

Date: May 13, 2011

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